

## ABSTRACT

A construction project management system generates a computerized simulation model of a construction project based on data accessed in project databases. The system maps engineering data into constructible elements in the computerized simulation model based on manufacturing data and organizes the constructible elements by construction crafts, construction areas, and systems for testing and turnover. Additionally, the system matches the constructible elements with one or more work steps based on project controls data and generates a visual display of the construction project. A user selects construction areas in the visual display of the construction project and selects constructible elements within the construction areas, via a graphical user interface of the system, to create work packages for work crews. Each work package comprises work steps for the constructible elements in the work package, and can include an estimated time and cost for executing the work steps in the work package.